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SUCCESSFUL RESYNCHRONIZATION IS AN INDEPENDENT PREDICTOR OF MORTALITY IN PATIENTS WITH CARDIAC RESYNCHRONIZATION

Poster Contributions
Hall C
Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Arrhythmias and Clinical EP: Other II
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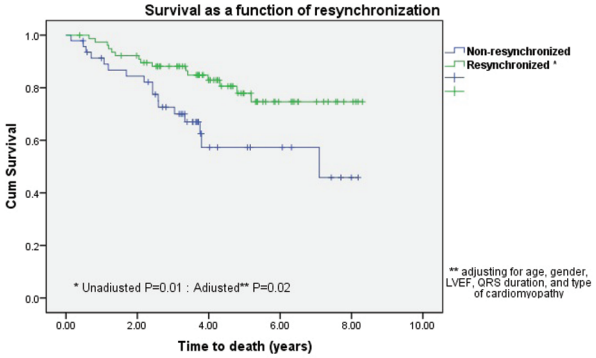
Background: It is unclear whether achieving ventricular resynchronization is an independent predictor of mortality in patients with cardiac resynchronization therapy (CRT). We examined the effect of resynchronization on mortality, while adjusting for other clinical variables.

Methods: Patients (n=187) from the Speckle Tracking Assisted Resynchronization Therapy for Electrode Region (STARTER) trial were enrolled. Resynchronization was defined as a 50% decrease in radial dyssynchrony (difference in time to peak anteroseptal to posterior wall strain) from before to after CRT, providing that they had at least 95ms dyssynchrony measured at baseline. The effect of resynchronization on survival in pre-defined subgroups was analyzed using the Cox proportional hazards model.

Results: Of 125 patients (mean age 65.4±12.4 years, EF 25.8±6.2%, QRS 160.9±28.2 ms, 58% ischemic cardiomyopathy [ICM]) who were assessed for resynchronization, 78 had successful resynchronization (68% men, 47% ICM) and 32 (25.6%) died over a follow up period of up to 8 years (4.0±2.0 years). Survival rate was significantly higher in resynchronized as compared to non-resynchronized patients (75% vs. 46%, P=0.01). Risk of death was significantly reduced in patients with resynchronized ventricles post CRT after adjusting for age, gender, LVEF, QRS duration, and type of cardiomyopathy (HR adjusted= 0.4, 95% CI=0.2, 0.9; Figure).

Conclusion: Resynchronization is an independent predictor of mortality in CRT recipients.



Resynchronized	78	72	66	63	63
Non-resynchronized	47	40	31	31	30